

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An apparatus for displaying a three-dimensional image, which synthesizes multiple two-dimensional microimages of a scene and regenerates them in a three-dimensional image of the scene, the apparatus comprising:

a detector for tracing movement of an observer head that observes the three-dimensional image, in real time and detecting ~~the~~ a position of the observer head; and

a compensator for adjusting a viewing zone of the three-dimensional image and/or compensating distortion of the three-dimensional image by manipulating the microimages in accordance with a signal input from the detector.

2. (Currently Amended) The apparatus of claim 1, wherein the detector ~~includes~~ comprises a head tracking system which traces movement of the observer head in real time, and a head position detector for calculating the position of the observer head traced by the head tracking system.

3. (Currently Amended) The apparatus of claim 1, wherein the compensator ~~includes~~ comprises either a viewing adjust engine which adjusts the viewing zone of the three-dimensional image by moving the microimages in accordance with a signal input from the head position detector, or ~~an aspectogram regeneration engine~~ a device which regenerates the multiple microimages of the scene in accordance with the signal input from the head position detector to compensate distortion of the three-dimensional image.

4. (Currently Amended) An apparatus for displaying a three-dimensional image, comprising:

~~an aspectogram containing~~ a plurality of two-dimensional microimages
~~displayed in real time~~ of a scene;

a microlens array for synthesizing the two-dimensional microimages and
regenerating them in a three-dimensional image of a scene;

a head tracking system for tracing movement of an observer head that
observes the three-dimensional image, in real time;

a head position detector for calculating ~~the~~ a position of the observer head
traced by the head tracking system; and

a viewing adjust engine for adjusting a viewing zone of the three-dimensional image by moving the microimages in accordance with a signal input from the head position detector.

5. (Currently Amended) The apparatus of claim [[1]] 4, further comprising ~~an aspectogram regeneration engine~~ a device which regenerates the microimages of the scene in accordance with the signal input from the head position detector to compensate distortion of the three-dimensional image.

6. (Currently Amended) The apparatus of claim 5, wherein the regenerated microimages are ~~moved~~ movable by the viewing adjust engine to form a new viewing zone centered relative to the moved observer head ~~by the viewing adjust engine~~.

7. (Currently Amended) An apparatus for displaying a three-dimensional image, comprising:

~~an aspectogram containing~~ a plurality of two-dimensional microimages ~~displayed in real time~~ of a scene;

a microlens array for synthesizing the two-dimensional microimages and regenerating them in a three-dimensional image of a scene;

a head tracking system for tracing movement of an observer head that observes the three-dimensional image, in real time;

a head position detector for calculating ~~the~~ a position of the observer head traced by the head tracking system; and

~~an aspectogram regeneration engine~~ a device for regenerating the microimages of the scene in accordance with a signal input from the head position detector to compensate distortion of the three-dimensional image.

8. (Currently Amended) The apparatus of claim 7, further comprising a viewing adjust engine ~~which adjusts for adjusting~~ a viewing zone of the three-dimensional image by moving the regenerated microimages of the scene to form a new viewing zone centered relative to the moved observer head, in accordance with a signal input from the head position detector and the ~~aspectogram regeneration engine~~ device for regenerating the microimages.

9. (Currently Amended) A method for displaying a three-dimensional image of a scene, which is generated by synthesizing multiple synthesizes two-dimensional microimages of the scene and regenerates-regenerating the microimage as the them in a three-dimensional image, the method comprising the steps of:

tracing movement of an observer head that observes the three-dimensional image, ~~in real time~~;

calculating ~~the~~ a position of the traced observer head; and

adjusting a viewing zone of the three-dimensional image and/or compensating distortion of the three-dimensional image, in accordance with the calculated position of the observer head.

10. (Currently Amended) The method of claim 9, wherein ~~the step of adjusting the viewing zone of the three-dimensional image includes the step of~~ comprises forming a new viewing zone centered relative to the moved observer head by moving the two-dimensional microimages of the scene.

11. (Currently Amended) The method of claim 9, wherein ~~the step of compensating distortion of the three-dimensional image includes the step of~~ comprises regenerating the two-dimensional microimages of the scene.

12. (New) An system for displaying a three-dimensional image of a scene that is generated via multiple two-dimensional images of the scene, comprising:

a detector that detects a position of an observer relative to the three-dimensional scene and outputs a position signal; and

a compensator that manipulates the two-dimensional images of the scene in accordance with the position signal.

13. (New) The system of claim 12, wherein the detector comprises a head tracking system.

14. (New) The system of claim 12, wherein the compensator comprises a viewing adjust engine that adjusts a viewing zone of the three-dimensional image by moving the two-dimensional images of the scene based on the position signal.

15. (New) The system of claim 12, wherein the compensator comprises a device that compensates for distortion by regenerating the two-dimensional images of the scene based on the position signal.

16. (New) The system of claim 12, wherein the compensator comprises:
a viewing adjust engine that adjusts a viewing zone of the three-dimensional image
by moving the two-dimensional images of the scene based on the position signal; and
a device that compensates for distortion by regenerating the two-dimensional
images of the scene based on the position signal.

18. (New) The system of claim 12, wherein the detector detects the position of the
observer by tracking the observer's head.

19. (New) A method of manipulating a three-dimensional image of a scene that is
generated via multiple two-dimensional images of the scene, comprising:
determining a position of an observer of the three-dimensional image; and
manipulating the two-dimensional images of the scene based on the determined
position of the observer.

20. (New) The method of claim 19, wherein the position of the observer is
determined by tracking the observer's head.

21. (New) The method of claim 19, wherein the two-dimensional images of the scene are moved based on the determined position of the observer so as to adjust a viewing zone of the three-dimensional image of the scene.

22. (New) The method of claim 19, wherein the two-dimensional images of the scene are regenerated based on the determined position of the observer so as to compensate for distortion in the three-dimensional image of the scene.

23. (New) The method of claim 19, wherein the two-dimensional images of the scene are manipulated by:

regenerating the two-dimensional images of the scene based on the determined position of the observer so as to compensate for distortion in the three-dimensional image of the scene; and

moving the two-dimensional images of the scene based on the determined position of the observer so as to adjust a viewing zone of the three-dimensional image of the scene.